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Glu Asp Thr Glu Arg Tyr Val Leu Thr Asn Leu Asn Ile Gly Ala Glu
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Leu Leu Arg Asp Pro Ser Leu Gly Ala Gln Phe Arg Val His Leu Val
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Asn Pro Glu Asp Asp Thr Asp Pro Gly His Ala Asp Leu Val Leu Tyr
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Ile Thr Arg Phe Asp Leu Glu Leu Pro Asp Gly Asn Arg Gln Val Arg
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Gly Val Thr Gln Leu Gly Gly Ala Cys Ser Pro Thr Trp Ser Cys Leu
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Ile Thr Glu Asp Thr Gly Phe Asp Leu Gly Val Thr Ile Ala His Glu
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Ile Gly His Ser Phe Gly Leu Glu His Asp Gly Ala Pro Gly Ser Gly
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Leu Thr Pro Ile Ala Ala Val His Gly Arg Trp Ser Ser Trp Gly Pro
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Arg Ser Pro Cys Ser Arg Ser Cys Gly Gly Val Val Thr Arg Arg
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Arg Gln Cys Asn Asn Pro Arg Pro Ala Phe Gly Gly Arg Ala Cys Val
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Gly Ala Asp Leu Gln Ala Glu Met Cys Asn Thr Gln Ala Cys Glu Lys
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115

120

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Pro Leu Arg Ser Ser Pro Gly Gly Ala Ser Phe Tyr His Trp Gly Ala
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Ala Val Pro His Ser Gln Gly Asp Ala Leu Cys Arg His Met Cys Arg
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Ala Ile Gly Glu Ser Phe Ile Met Lys Arg Gly Asp Ser Phe Leu Asp
165 170 175

Gly Thr Arg Cys Met Pro Ser Gly Pro Arg Glu Asp Gly Thr Leu Ser
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Leu Cys Val Ser Gly Ser Cys Arg Thr Phe Gly Cys Asp Gly Arg Met
195 200 205

Asp Ser Gln Gln Val Trp Asp Arg Cys Gln Val Cys Gly Gly Asp Asn
210 215 220

Ser Thr Cys Ser Pro Arg Lys Gly Ser Phe Thr Ala Gly Arg Ala Arg
225 230 235 240

Glu Tyr Val Thr Phe Leu Thr Val Thr Pro Asn Leu Thr Ser Val Tyr
245 250 255

Ile Ala Asn His Arg Pro Leu Phe Thr His Leu Ala Val Arg Ile Gly
260 265 270

Gly Arg Tyr Val Val Ala Gly Lys Met Ser Ile Ser Pro Asn Thr Thr
275 280 285

Tyr Pro Ser Leu Leu Glu Asp Gly Arg Val Glu Tyr Arg Val Ala Leu
290 295 300

Thr Glu Asp Arg Leu Pro Arg Leu Glu Glu Ile Arg Ile Trp Gly Pro
305 310 315 320

Leu Gln Glu Asp Ala Asp Ile Gln Val Gly Gly Val Arg Ala Gln Leu
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Ser Leu Arg Arg Arg Ser Leu Cys Trp Pro Pro Thr Ser Ala Pro Ala
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Gly Ala Leu Val Leu Val Pro Ala Lys Ser Arg Leu Leu Val Gly Gly
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Ala Gly Arg Glu Leu Leu Phe Pro Leu Thr Lys Gly His Ala Ser Lys
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Arg Phe His Pro Arg Ala His Ser Ser Val Pro Pro Pro Pro Gly Val
100 105 110

His Pro Gly Thr Glu Pro Gly Leu Ser Arg Ala Leu Ser Gln Arg Met
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Thr Gly Ala Leu Val Trp Asp Pro Pro Arg Pro Gln Pro Gly Ser Ala
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Gly His Pro Arg Asn Ala His Leu Gly Leu Tyr Tyr Ser Ala Asn Glu
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Gln Cys Arg Val Ala Phe Gly Pro Lys Ala Val Ala Cys Thr Phe Ala
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Arg Glu His Leu Val Ser Leu Pro Ala Val Ala Trp Asp Trp Leu Xaa
180 185 190

Gly Pro Ser Ala Ser Pro Ser Ser Arg Pro Pro Lys Arg Ala Trp Ile
195 200 205

Cys Ala Arg Pro Ser Pro Ala Thr Gln Thr Arg Trp Thr Lys Ala Ala
210 215 220

Ala Ala Ala Ser Ser Phe Leu Ser Trp Met Gly Gln Asn Val Ala Trp
225 230 235 240

Arg Ser Gly Ala Pro Arg Val Ala Ala Ala Pro Trp Trp Ser Xaa Pro
245 250 255

Pro Xaa Gln Gln Cys Met Gly Ala Gly Leu Ala Gly Val Pro Glu Val
260 265 270

Leu Ala Pro Ala Pro Ala Glu Glu Val Trp Ser Pro Gly Gly Ser
275 280 285

Ala Thr Thr Pro Asp Leu Pro Leu Gly Gly Val His Val Leu Val Leu
290 295 300

Thr Ser Arg Pro Arg Cys Ala Thr Leu Arg Pro Ala Arg Arg Pro Ser
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Trp Ser Ser Cys Arg Asn Ser Ala Pro Gly Pro Thr Ala Ser Arg Cys
325 330 335

Ala Pro Pro Leu Ala Ala Pro Pro Ser Thr Thr Gly Val Leu Leu Tyr
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His Thr Ala Lys Gly Met Leu Cys Ala Asp Thr Cys Ala Gly Pro Leu
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Ser Pro Trp Gly Ser Ile Arg Thr Gly Ala Gln Ala Ala His Val Trp
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Glu Glu Leu Cys Gly Leu Ala Ser Lys Pro Gly Ser Arg Arg Glu Val
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Cys Gln Ala Val Pro Cys Pro Ala Arg Trp Gln Tyr Lys Leu Ala Ala
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Cys Ser Val Ser Cys Gly Arg Gly Val Val Arg Arg Ile Leu Tyr Cys
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Gly Ile Leu Ala Cys Gly Phe Leu Leu Gly Cys Trp Gly Pro Ser His
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Phe Gln Gln Ser Cys Leu Gln Ala Leu Glu Pro Gln Ala Val Ser Ser
35 40 45

Tyr Leu Ser Pro Gly Ala Pro Leu Lys Gly Arg Pro Pro Ser Pro Gly
50 55 60

Phe Gln Arg Gln Arg Gln Arg Gln Arg Arg Ala Ala Gly Gly Ile Leu
65 70 75 80

His Leu Glu Leu Leu Val Ala Val Gly Pro Asp Val Phe Gln Ala His
85 90 95

Gln Glu Asp Thr Glu Arg Tyr Val Leu Thr Asn Leu Asn Ile Gly Ala
100 105 110

Glu Leu Leu Arg Asp Pro Ser Leu Gly Ala Gln Phe Arg Val His Leu
115 120 125

Val Lys Met Val Ile Leu Thr Glu Pro Glu Gly Ala Pro Asn Ile Thr
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Ala Asn Leu Thr Ser Ser Leu Leu Ser Val Cys Gly Trp Ser Gln Thr
145 150 155 160

Ile Asn Pro Glu Asp Asp Thr Asp Pro Gly His Ala Asp Leu Val Leu
165 170 175

Tyr Ile Thr Arg Phe Asp Leu Glu Leu Pro Asp Gly Asn Arg Gln Val
180 185 190

Arg Gly Val Thr Gln Leu Gly Gly Ala Cys Ser Pro Thr Trp Ser Cys
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Leu Ile Thr Glu Asp Thr Gly Phe Asp Leu Gly Val Thr Ile Ala His
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Glu Ile Gly His Ser Phe Gly Leu Glu His Asp Gly Ala Pro Gly Ser
225 230 235 240

Gly Cys Gly Pro Ser Gly His Val Met Ala Ser Asp Gly Ala Ala Pro
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Arg Ala Gly Leu Ala Trp Ser Pro Cys Ser Arg Arg Gln Leu Leu Ser
260 265 270

Leu Leu Ser Ala Gly Arg Ala Arg Cys Val Trp Asp Pro Pro Arg Pro
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Gln Pro Gly Ser Ala Gly His Pro Pro Asp Ala Gln Pro Gly Leu Tyr
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Tyr Ser Ala Asn Glu Gln Cys Arg Val Ala Phe Gly Pro Lys Ala Val
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Ala Cys Thr Phe Ala Arg Glu His Leu Asp Met Cys Gln Ala Leu Ser
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Cys His Thr Asp Pro Leu Asp Gln Ser Ser Cys Ser Arg Leu Leu Val
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Pro Leu Leu Asp Gly Thr Glu Cys Gly Val Glu Lys Trp Cys Ser Lys
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Cys Asn Thr Gln Ala Cys Glu Lys Thr Gln Leu Glu Phe Met Ser Gln
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Lys Arg Gly Asp Ser Phe Leu Asp Gly Thr Arg Cys Met Pro Ser Gly
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Pro Arg Glu Asp Gly Thr Leu Ser Leu Cys Val Ser Gly Ser Cys Arg
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Thr Phe Gly Cys Asp Gly Arg Met Asp Ser Gln Gln Val Trp Asp Arg
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Cys Gln Val Cys Gly Gly Asp Asn Ser Thr Cys Ser Pro Arg Lys Gly
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Thr Pro Asn Leu Thr Ser Val Tyr Ile Ala Asn His Arg Pro Leu Phe
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Thr His Leu Ala Val Arg Ile Gly Gly Arg Tyr Val Val Ala Gly Lys
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Met Ser Ile Ser Pro Asn Thr Thr Tyr Pro Ser Leu Leu Glu Asp Gly
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Arg Val Glu Tyr Arg Val Ala Leu Thr Glu Asp Arg Leu Pro Arg Leu
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Glu Glu Ile Arg Ile Trp Gly Pro Leu Gln Glu Asp Ala Asp Ile Gln
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Val Tyr Arg Arg Tyr Gly Glu Glu Tyr Gly Asn Leu Thr Arg Pro Asp
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Ile Thr Phe Thr Tyr Phe Gln Pro Lys Pro Arg Gln Ala Trp Val Trp
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Trp Val Asn Tyr Ser Cys Leu Asp Gln Ala Arg Lys Glu Leu Val Glu
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Thr Val Gln Cys Gln Gly Ser Gln Gln Pro Pro Ala Trp Pro Glu Ala
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Cys Val Leu Glu Pro Cys Pro Pro Tyr Trp Ala Val Gly Asp Phe Gly
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Pro Cys Ser Ala Ser Cys Gly Gly Gly Leu Arg Glu Arg Pro Val Arg
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Cys Val Glu Ala Gln Gly Ser Leu Leu Lys Thr Leu Pro Pro Ala Arg
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Cys Arg Ala Gly Ala Gln Gln Pro Ala Val Ala Leu Glu Thr Cys Asn
785 790 795 800

Pro Gln Pro Cys Pro Ala Arg Trp Glu Val Ser Glu Pro Ser Ser Cys
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Thr Ser Ala Gly Gly Ala Gly Leu Ala Leu Glu Asn Glu Thr Cys Val
820 825 830

Pro Gly Ala Asp Gly Leu Glu Ala Pro Val Thr Glu Gly Pro Gly Ser
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Val Asp Glu Lys Leu Pro Ala Pro Glu Pro Cys Val Gly Met Ser Cys
850 855 860

Pro Pro Gly Trp Gly His Leu Asp Ala Thr Ser Ala Gly Glu Lys Ala
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Pro Ser Pro Trp Gly Ser Ile Arg Thr Gly Ala Gln Ala Ala His Val
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Trp Thr Pro Ala Ala Gly Ser Cys Ser Val Ser Cys Gly Arg Gly Leu
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Met Glu Leu Arg Phe Leu Cys Met Asp Ser Ala Leu Arg Val Pro Val
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Gln Glu Glu Leu Cys Gly Leu Ala Ser Lys Pro Gly Ser Arg Arg Glu
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Val Cys Gln Ala Val Pro Cys Pro Ala Arg Trp Gln Tyr Lys Leu Ala
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Ala Cys Ser Val Ser Cys Gly Arg Gly Val Val Arg Arg Ile Leu Tyr
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Cys Ala Arg Ala His Gly Glu Asp Asp Gly Glu Glu Ile Leu Leu Asp
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Thr Gln Cys Gln Gly Leu Pro Arg Pro Glu Pro Gln Glu Ala Cys Ser
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Leu Glu Pro Cys Pro Pro Arg Trp Lys Val Met Ser Leu Gly Pro
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Ser Ser Ala Cys Gly Arg Gln His Leu Glu Pro Thr Gly Thr Ile
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Asp Met Arg Gly Pro Gly Glu Ala Asp Cys Ala Val Ala Ile Gly
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